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INTRODUCTION TO THE PUBLIC SAFETY ELEMENT

The Public Safety Element is directly concerned with reducing the potential risk of loss of life, injury, property damage, and economic and social dislocation resulting from a disaster, accident, or other hazard. This element outlines goals and policies to mitigate identified hazards specific to Mission Viejo. This element is a comprehensive update to the City's first Public Safety Element adopted on October 8, 1990.

PURPOSE OF THE PUBLIC SAFETY ELEMENT

Section 65302(g) of the State of California Government Code requires general plans to include, "a safety element for the protection of the community from any unreasonable risks associated with the effects of seismically induced surface rupture, ground shaking, ground failure, tsunami, and dam failure; slope instability leading to mudslides and landslide, subsidence and other geologic hazards known to the legislative body; flooding and wildland and urban fires."

The Element contains goals and policies that will minimize the risks associated with identified hazards in order to protect the community. Much of the background information necessary to formulate goals and policies is included in the Public Safety Element Technical Report and the Master Environmental Assessment (MEA). These reports identify the major hazards that might affect the City as well as the resources that are currently available to respond in the event of an emergency.

RELATED PLANS AND PROGRAMS

Mission Viejo General Plan

The Public Safety Element is closely related to the goals, policies, plans, and programs outlined in the other Mission Viejo General Plan Elements. The Land Use Element, for example, contains land use policies to ensure that development does not occur in areas that may be subject to flooding, landslides, wildland fires, or other hazards. The Circulation Element ensures efficiency of roadways in moving large numbers of people during emergency situations.

Emergency Operations Plan (EOP)

Mission Viejo has prepared an Emergency Operations Plan to address the City's response in the event of a large scale disaster or emergency situations. The City of Mission Viejo Emergency Operation Plan closely relates to the Public Safety Element because it outlines the City's response to emergency situations. The EOP is required

THEORY OF THE EARTH AND ITS HISTORY

The theory of the earth and its history is a branch of geology which deals with the origin and development of the earth and its various parts. It is a science which seeks to explain the processes which have shaped the earth and its features, and to determine the sequence of events which have taken place since the earth was first formed.

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by all California cities and the Governor's Office of Emergency Services has provided directives concerning the preparation of the EOP. The EOP's focus is on the operational concepts and response procedures relative to large-scale disasters. The City of Mission Viejo adopted the Emergency Operations Plan (EOP) in 1992. This plan was updated in 1999 to be in full compliance with the California Standardized Emergency Management System (SEMS), qualifying the City of Mission Viejo for disaster reimbursement from the State of California. The policies and measures indicated in this Public Safety Element are designed as supplements to the specific procedures contained in the City's EOP for emergency responses.

County of Orange

Other plans related to public safety include the County's Safety Element of their General Plan, which describes regional hazards and County procedures for emergency responses. The County's Waste Management Plan also is referenced within this Element as it relates to the transportation and disposal of waste materials in Mission Viejo and the state and local policies for control of these materials.

SCOPE AND CONTENT OF ELEMENT

The Public Safety Element is organized into two main sections: The Public Safety Goals and Policies and The Safety Plan. The Public Safety Goals and Policies contain broad goals of minimizing risk and specific policies emphasizing emergency preparedness and prudent land use planning. The Safety Plan builds upon the assessment of local hazards contained in the City's Master Environmental Assessment and the Public Safety Element Technical Report. The Safety Plan identifies appropriate standards that are needed to ensure that adequate levels of emergency services are provided.

PUBLIC SAFETY ELEMENT GOALS AND POLICIES

This section contains goals and policies focused on reducing the risks associated with hazards where mitigation is possible. The following goals and policies are grouped into a number of major hazard areas ranging from natural to man-made hazards.

There is an important relationship between land use planning and the reduction of potential hazards. Certain considerations need to be given when development is proposed in areas subject to environmental constraints that could result in loss of life, personal injury, or property damage. In addition, physical design controls provide protection against a number of potential hazards. Policies related to building design and site planning provide a basis for the development of specific guidelines and regulations that are effective in reducing the damaging effects of natural and man-made disasters.

GEOLOGIC HAZARDS

Landslides, subsidence, uplift, erosion, and dangerous soil characteristics (expansive, peat, sulfate, gaseous, and corrosive soils, and hydro-consolidation) are natural geologic occurrences that can have devastating impacts on developed areas resulting in property damage, and even loss of life. As part of the City's mandate to protect the public health and safety, it must ensure that new development is constructed on lands that are geologically safe or that have been properly prepared for development. For these reasons, the following goal policies are established:

GOAL 1: Protect the community from hazards associated with geologic formations.

Policy 1.1: Require soil and geotechnical reports for new developments, both residential and commercial. Development in areas that contain potentially hazardous geologic/soils conditions shall require detailed geotechnical studies and mitigation measures that reduce the identified risks prior to the approval of development.

Policy 1.2: Monitor known and potential geologic hazards in the City through periodic updates to the City's Master Environmental Assessment and Emergency Operations Plan.

Policy 1.3: Coordinate with the County of Orange and surrounding jurisdictions to reduce geologic hazard conditions.

WATER QUALITY ELEMENT GOALS AND POLICIES

The water quality goals and policies listed in this section are intended to provide a framework for the development of water quality standards and management plans. The following goals and policies are intended to provide a framework for the development of water quality standards and management plans.

There is an important relationship between the quality of the water and the health of the people. Clean water is essential for the health of the people. The quality of the water is also important for the health of the environment. The quality of the water is also important for the health of the economy. The quality of the water is also important for the health of the culture. The quality of the water is also important for the health of the society. The quality of the water is also important for the health of the world.

GOALS AND POLICIES

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SEISMIC HAZARD

Mission Viejo is situated in a seismically active region. The Uniform Building Code designates seismic zones, on a scale of 1 to 4 (4 being the most active and sever seismic zone), for the purpose of determining structural requirements. Mission Viejo is designated as being within seismic zone 4. The City is aware of the need to cooperate with local and state agencies to reduce the risk of seismic hazards to its inhabitants. The State of California passed the Alquist-Priolo Special Studies Zone Act and the Seismic Hazards Mapping Act to assist localities in identifying and mitigating potential seismic hazards.

The Alquist-Priolo Special Studies Zone Act was passed in 1972 by the State legislature to mitigate the hazards of surface faulting to structures for human occupancy. The State Geologist designates regulatory zones (known as Earthquake Fault Zones) near active faults that have the potential to surface rupture. Proposed development projects within Earthquake Fault Zones require a geologic investigation prior to local government approval. A licensed geologist must carry out the geologic investigation to demonstrate that proposed buildings would not be constructed across active faults. The most recent list of cities affected by the Alquist-Priolo Earthquake Fault Zones was published in May 1999 by the Department of Conservation, California Geological Survey. Mission Viejo is not listed as one of the affected cities.

The Seismic Hazards Mapping Act was passed on April 1, 1991 by the State legislature to identify areas where earthquakes are likely to cause shaking, liquefaction, landslides, or other ground failures, and to regulate development to reduce future earthquake losses. The process for this act is similar to the process outlined in the Alquist-Priolo Special Studies Zone Act. The State Geologist designates regulatory zones (called Zones of Required Investigation) in areas where seismic hazards exist. The Zones of Required Investigation require geologic investigations and appropriate mitigation measures prior to obtaining building permits. When real property within the zones is sold, the seller or the seller's agent must disclose this fact to potential buyers.

Using these acts as tools, the City of Mission Viejo implements planning and building standards ensuring new development implements mitigation measures thus reducing the risk of damage from seismic events. In addition, maintenance of public facilities is necessary to reduce the risk of hazards involving a major structure, such as dam failure, as a result of a seismic event. The following goal and policies have been adopted by the City to help reduce risks to its inhabitants from seismic hazards:

GOAL 2: Reduce the risk of seismic hazards.

Policy 2.1: Follow established standards for grading and construction to mitigate the potential for seismic hazards.

Policy 2.2: Support continued State inspection of the Upper Oso Reservoir Dam, El Toro Reservoir Dam, and Lake Mission Viejo Dam to reduce risk of dam failure as a result of a seismic event.

Policy 2.3: Coordinate with the County of Orange, Caltrans and surrounding jurisdictions to reduce seismic hazard conditions and preparing for seismic event conditions.

Policy 2.4: Coordinate with Caltrans and the County of Orange to ensure that any seismic hazards associated with bridges are identified and corrected.

Policy 2.5: Ensure that critical facilities, such as hospitals and schools, are not located across active or potentially active faults.

Policy 2.6: Continue to implement operational guidelines and design standards, consistent with Public Utility Commission limitations, for subsurface transmission lines including natural gas, petroleum, water, and waste water which minimizes potential environmental damage resulting from operational failure due to natural or man-made catastrophes.

Policy 2.7: Monitor any proposed changes to the Alquist-Priolo Special Studies Zone Act and Seismic Hazards Mapping Act that may impact the City.

(See figure PS-1 Seismic Hazard Zone Map and figure PS-2 Fault Map)

FLOOD HAZARD

New development results in more impermeable surfaces such as parking lots, paved streets, etc. These impermeable surfaces result in increased runoff during storms sometimes resulting in flooding. Four watercourses exist through parts of the City. Land uses that exist in or adjacent to these flood plains may become threatened in the case of a 100-year flood event or a stream blockage. In addition, in the unlikely event of a dam failure, flooding of portions of the City may occur. Areas subject to flooding and dam inundation should contain only those land uses that are appropriate with potential flooding conditions (open space, parks, etc.). Any structures within flood-prone areas should be protected from flooding events. For these reasons, the following goals and policies are established:

GOAL 3: Protect the City's inhabitants from risk associated with flood hazards.

Policy 3.1: Maintain appropriate land use designations for areas subject to flooding.

Policy 3.2: Identify flood hazard areas and implement a system of protective controls.

Policy 3.3: Work with the Federal Emergency Management Agency and the County of Orange in reducing community risk due to flooding.

Policy 3.4: Prohibit development, grading, or filling in floodplain areas with the exception of necessary public roadways, water supply projects, flood control projects, recreational uses, or where the primary function is improvement of fish and wildlife habitat.

Policy 3.5: Maintain and update a storm drain master inventory.

Policy 3.6: Coordinate the city's storm drain master inventory with adjacent communities.

Policy 3.7: Give priority to less intrusive, environmentally compatible flood control projects over extensive man-made controls.

(See figure PS-3 Flood Hazard Zone Map)

DISASTER PREPAREDNESS PLAN

Manmade and natural disasters can have devastating consequences on a community that is not prepared for such a catastrophe. While emergency preparedness cannot always prevent a disaster from occurring, the loss of life, injury, and property damage can be substantially reduced in most instances. Most experts agree that the effects of a major disaster can be significantly reduced if persons are familiar with the appropriate actions to take in the event of a major disaster or crisis. The importance of emergency preparedness in the City is underscored by the following goal and supporting policies.

GOAL 4: Develop and maintain a disaster preparedness plan.

Policy 4.1: The City's adopted Emergency Operations Plan (EOP) shall serve as the City's disaster preparedness plan, which shall identify all resources and funds (City, County, State and Federal) available for use in the event of a natural or man-made disaster.

Policy 4.2: Establish implementing actions or programs under the EOP, such as rescue efforts, medical efforts, emergency shelter and provisions, communications, evacuation, and economic recovery.

Policy 4.3: Establish procedures for requesting emergency funds from State and

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Federal sources.

Policy 4.4: Establish a City disaster fund containing monies available for emergency shelter and other disaster-related relief efforts.

HAZARDOUS MATERIAL EXPOSURE

The handling and storage of hazardous materials, both household and industrial, has become a daily occurrence within urban areas. Many households and commercial and industrial establishments throughout Mission Viejo store and/or use hazardous materials in some capacity. When improperly stored and disposed of, these materials can result in a multitude of hazards for the community including fire, water contamination, illness, and death.

The Southern California Association of Governments (SCAG) with input from the Orange County Health Care Agency has prepared a Hazardous Waste Management Plan that encompasses a regional plan to dispose of, store, and reduce the risks associated with hazardous waste. The associated hazardous materials issues include accidental spillage of wastes, the transportation of wastes through populated areas, and disposal of wastes in a safe manner.

One of the greatest risks to a community from hazardous materials is during the transportation of materials from suppliers to users on freeways, streets, and railroads. The California Department of Transportation is the primary regulatory authority for interstate transport of hazardous materials, establishing safe handling procedures. The California Highway Patrol enforces the regulations regarding hazardous material transportation.

Hazardous materials such as petroleum and natural gas can also be transported through underground pipelines. These underground pipelines have the potential to rupture contaminating drinking water and causing fire. The California State Fire Marshal, Office of Liquid Pipeline Division, enforces and inspects underground pipelines. The Orange County Fire Authority (OCFA) has emergency response authority in the event of a ruptured pipeline.

The Orange County Fire Authority's other responsibilities include inventorying the distribution of hazardous materials. The OCFA has developed and implemented area emergency plans to respond to a hazardous material incident and requires businesses that handle hazardous materials to develop business emergency plans to deal with fire and the release of those materials.

The San Onofre Nuclear Generating Station (SONGS) is approximately 15 miles southeast of Mission Viejo. The nuclear power plant is located next to San Onofre

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3. In the third part of the paper we consider the case of a nonlinear system of equations (1) with constant coefficients. We show that in this case the system has a solution for arbitrary values of the parameters α and β if and only if the determinant of the system is not equal to zero.

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State Beach, on Camp Pendleton U.S. Marine Corps Base. The Nuclear Regulatory Commission establishes an area around all nuclear power plant identified as an Emergency Planning Zone (EPZ). Extensive planning efforts within the SONGS EPZ are provided for emergency actions in the unlikely event of a serious emergency. The State of California has defined the area around and adjacent to the Emergency Planning Zone as the Public Education Zone. Mission Viejo falls within the Public Education Zone. For the reasons, the following goal and policies are established:

GOAL 5: Protect the City's inhabitants from exposure to hazardous materials and wastes.

Policy 5.1: Cooperate with the County and SCAG in implementation of its Hazardous Waste Management Plan.

Policy 5.2: Cooperate with railroad operations to ensure that hazardous materials transported by rail do not pose a threat to life or property.

Policy 5.3: Land uses involving the production, storage, transportation, handling, or disposal of hazardous materials shall be located a safe distance from other land uses that may be adversely affected by such activities.

Policy 5.4: Establish transportation routes for the conveyance of hazardous materials.

(See figure PS-4 Hazardous Materials Map)

FIRE

The City's urban fringe and rural residential areas are prone to wildland fire hazards. These areas are subject to both wild and urban fires due to the proximity to Cleveland National Forest. The region's natural vegetation is highly prone to wild fire, with the potential that a fire in the national forest could spread to developed areas of the City. The urbanized areas of the City are also subject to structural fires. The City will reduce the potential for dangerous fires by coordinating with the Orange County Fire Authority (OCFA) to implement fire hazard education, fire protection, and fuel modification programs. The current Uniform Fire Code and the City's adopted Very High Fire Hazard Severity Zone Ordinance (Ordinance No. 95-151) will be used to reduce structure fire hazards. In addition, the City will work closely with local water districts and OCFA to ensure that water pressure is adequate for fire fighting purposes. For these reasons, the following goal and policies are established:

GOAL 6: Protect the City's inhabitants from risk associated with fires.

Policy 6.1: Continue to work closely with OCFA on educating residents and businesses regarding wildland fire hazards.

Policy 6.2: Implement and enforce established regulations for fire-resistant building materials for areas subject to wildland fire hazards.

Policy 6.3: Continue to implement programs to provide notice to all residents located near wildland fire hazard areas.

Policy 6.4: Maintain mutual aid agreements with the County of Orange and surrounding cities for fire protection.

Policy 6.5: Work closely with the Orange County Fire Authority to establish and maintain a wildfire defense planning and weed abatement programs to reduce the danger of vegetation fires in or adjacent to the City.

Policy 6.6: Work closely with the Orange County Fire Authority to adopt and enforce the most current edition of the Uniform Fire Codes and the City's Very High Fire Hazard Severity Zone Ordinance.

Policy 6.7: Establish a vegetation management program in brush areas.

(See figure PS-5 Very High Fire Hazard Map).

CRIME

In 2001 the City of Mission Viejo was named the third safest city in the United States by independent private research and publishing company, Morgan Quitno. The Morgan Quitno Award is based on a city's reported crime rate in six basic categories: murder, rape, robbery, aggravated assault, burglary and motor vehicle theft. While this achievement is one to be proud of, continued diligence in deterring crime will ensure that the City continues to be one of the safest cities in the United States. For these reasons, the following goals and policies are established:

GOAL 7: Protect the City's inhabitants and businesses from criminal activity.

Policy 7.1: Provide substantive levels of police service and protection.

Policy 7.2: Encourage development of programs and practices that incorporate crime prevention methods, techniques, and experience into the planning process and improve public awareness of ways to reduce criminal activity.

Policy 7.3: Continue to coordinate land use proposal reviews with Mission Viejo Police Services to assure that police patrol services are adequately addressed.

Policy 7.4: Continue to provide an effective approach and response to the removal and abatement of graffiti.

WATER QUALITY

Water is an essential resource for sustaining life. Therefore, the protection of this resource is a priority for the City of Mission Viejo. As mandated by the California Regional Water Quality Control Board, San Diego Region, cities in South Orange County are required to develop a program to control the discharge of pollutants. The program includes measures to prevent and treat pollutants from entering the watershed. For these reasons, the following goal and policies are established:

GOAL 8: Protect the City's water quality and watersheds from risk associated with urban runoff.

Policy 8.1: Minimize the amount of impervious surfaces and directly connected impervious surfaces in areas of new development and redevelopment and where feasible slow runoff and maximize on-site infiltration of runoff.

Policy 8.2: Implement pollution prevention methods supplemented by pollutant source controls and treatment. Use small collection strategies located at, or as close as possible to, the source (i.e., the point where water initially meets the ground) to minimize the transport of urban runoff and pollutants offsite and into a municipal separate storm sewer system (MS4).

Policy 8.3: Preserve, and where possible, create or restore areas that provide important water quality benefits, such as riparian corridors, wetlands, and buffer zones. Encourage land acquisition of such areas.

Policy 8.4: Limit disturbances of natural water bodies and natural drainage systems caused by development including roads, highways, and bridges.

Policy 8.5: Prior to making land use decisions, utilize methods available to estimate increases in pollutant loads and flows resulting from projected future development. Require incorporation of structural and non-structural best management practices to mitigate the projected increases in pollutant loads and flows.

Policy 8.6: Avoid development of areas that are particularly susceptible to erosion and sediment loss; or establish development guidance that identifies these areas and protects them from erosion and sediment loss.

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2. The second part of the report is a detailed description of the methods used in the study.

3. The third part of the report is a discussion of the results of the study.

4. The fourth part of the report is a conclusion and a list of references.

5. The fifth part of the report is a list of appendices.

6. The sixth part of the report is a list of figures and tables.

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9. The ninth part of the report is a list of symbols.

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11. The eleventh part of the report is a list of references.

Policy 8.7: Reduce pollutants associated with vehicles and increasing traffic resulting from development. Coordinate local traffic management reduction efforts with Orange County Transportation Authority's Congestion Management Plan.

Policy 8.8: Ensure post-development runoff from a site shall not contain pollutant loads that cause or contribute to an exceedance of receiving water quality objectives and which have not been reduced to the maximum extent practicable.

TABLE 250
PUBLIC SAFETY BY ELEMENT

Element	Risk Assessment							
	Score	Severity	Frequency	Consequence	Exposure	Public	Private	Overall
1. Air Quality	100	100	100	100	100	100	100	100
2. Noise	100	100	100	100	100	100	100	100
3. Traffic	100	100	100	100	100	100	100	100
4. Water Quality	100	100	100	100	100	100	100	100
5. Water Quantity	100	100	100	100	100	100	100	100
6. Wetlands	100	100	100	100	100	100	100	100
7. Cultural Resources	100	100	100	100	100	100	100	100
8. Biological Resources	100	100	100	100	100	100	100	100
9. Geology	100	100	100	100	100	100	100	100
10. Seismicity	100	100	100	100	100	100	100	100
11. Soils	100	100	100	100	100	100	100	100
12. Paleontology	100	100	100	100	100	100	100	100
13. Historical Resources	100	100	100	100	100	100	100	100
14. Visual Resources	100	100	100	100	100	100	100	100
15. Cumulative Impacts	100	100	100	100	100	100	100	100

After you have read the book, please write a short paragraph (5-7 lines) describing the main idea of the book and how it relates to the course. You may also include any questions or comments you have.

Thank you for your contribution to the course. Your input is valuable and will help us improve the course for future students.

Yours truly,
[Signature]

RELATED GOALS AND POLICES

The goals and policies contained in the other elements are also important in addressing public safety issues. A number of goals and policies contained in the Conservation and Open Space Element are concerned with development restrictions in areas subject to environmental constraints that might affect both persons and property. The Housing Element also contains policies that underscore the importance of ensuring that housing is both safe and decent. Other elements containing policies that serve to support the aims expressed in this Element are identified in Table PS-1: Public Safety Policies by Element.

**TABLE PS-1
PUBLIC SAFETY BY ELEMENT**

ISSUE AREA	POLICIES BY ELEMENT							
	Land Use	Housing	Circulation	Conservation /Open Space	Noise	Public Facilities	Economic Development	Growth Management
Protect community from geologic hazards	2.8, 2.9, 4.1-4.3	2.4, 4.2 3.8		1.3 3.1, 3.4		1.1, 1.2		
Reduce the risk of seismic hazards	2.8, 2.9, 4.1-4.3	2.4, 3.8				1.1, 1.2		
Protect community from flood hazards	2.8, 2.9, 4.1-4.3	2.4, 3.8		3.4		1.2, 1.2, 3.4, 6.1-6.3		
Develop a disaster preparedness plan		3.8, 4.1	1.1-1.13, 4.1-4.7, 5.4			1.1, 1.2		
Protect community from hazardous materials exposure	2.8, 2.9, 4.1-4.3	2.4, 3.8		3.4		1.1, 1.2 7.1-7.4		
Protect community from fire Hazards	2.8, 2.9, 4.1-4.3	2.4, 3.8				1.1, 1.2		
Protect community from crime	2.1, 2.2 2.5	3.8, 4.1	1.8			1.1-1.3		
Protect the communities water quality and watersheds from risk	2.8, 2.9, 4.3	2.4, 3.8		1.1, 1.2		5.1-5.6, 6.1-6.3		

THE PUBLIC SAFETY PLAN

This section of the Public Safety Element includes an assessment and discussion of emergency preparedness planning needed both to provide everyday safety and emergency services, and to respond to major disasters. This section serves as a supplement to the City's Emergency Operations Plan (EOP), which identifies appropriate actions to be taken by City staff in response to an emergency. In addition, the Plan identifies standards needed to ensure that an adequate level of emergency service is provided in the future.

INTRODUCTION AND SCOPE OF THE PLAN

A broad variety of public safety services are provided by several public agencies. Most significant are fire response and safety as provided by the Orange County Fire Authority and law enforcement services by the Orange County Sheriff's Department. Other City departments provide day-to-day services related to public safety. The Public Works Department is responsible for the maintenance of streets, flood control, and some aspects of public safety. Also, the Public Works Director coordinates health related activities during major disasters and is responsible for guiding the construction and engineering of disaster response and recovery operations.

The City's Building Services Division is responsible for the enforcement of construction codes for safety. Other agencies involved in public safety service having jurisdiction or public safety services within the City include the California Highway Patrol, the State/National Guard, and the County Health Care Agency and its branches. Service from these outside agencies should continue to be available, somewhat independent of the City's planned development and control. Therefore, the following sections concentrate primarily on services provide by the Orange County Fire Authority or the Orange County Sheriff's Department.

An earthquake, or even a more localized incident such as a chemical spill, may force the evacuation of thousands of people. Thousands of others may require emergency shelter and medical treatment. The Emergency Response and Action section of this Element identifies emergency evacuation routes and emergency shelters.

An emergency preparedness strategy will assist existing efforts by public officials in improving public readiness. The emergency operations procedures described in the

City's EOP outline the responsibilities of City and contract County personnel in the event of disaster. As indicated, this information serves as a basis for future emergency preparedness planning in the City.

Emergency planning and preparedness, as considered in this Element, consists of three main components:

1. Potential public safety hazard areas and assessment;
2. Hazards mitigation; and
3. Emergency response and action.

Potential natural and man-made hazards have been identified in the Risk of Upset Section of the Master Environmental Assessment (MEA). The MEA contains supporting data and background material needed to assess the level of risk in the City. Hazards mitigation is accomplished by a number of goals and policies contained in the Element, which reduce the likelihood of environmental upset or the damaging effects that might result from a disaster or accident.

POTENTIAL PUBLIC SAFETY HAZARD AREAS AND ASSESSMENT

Mission Viejo is recently developed and structures were built under modern building codes using current construction techniques to minimize damage resulting from seismic shaking. Structures in the City meet local, County, and State construction codes and should withstand the level of shaking experienced in the area. Developments were planned and built in accordance with modern planning techniques to avoid placement of structures in potentially hazardous areas such as land subject to landslides and flooding.

Figure PS-1 indicates the location of the potential hazardous areas in the City that could pose a public safety threat. Hazardous areas include those areas that may be threatened by flooding, fire, explosion from a major railroad accident or line eruption, or those areas that contain unstable earth conditions. **Figure PS-1** illustrates the areas within the City that are subject to seismic shaking in the event of a major seismic event along the Newport-Inglewood Fault or the San Andreas Fault. The levels of intensity described by the figure are defined in **Table PS-2** by the Modified Mercalli Intensity Scale. Areas that would sustain the worst damage as a result of seismic shaking include steeply sloped areas that may be susceptible to landslides. Fire damage from a seismic event would also pose a safety hazard to residential areas should utility lines rupture following an earthquake, igniting surrounding structures.

1. The first part of the document is a letter from the President of the United States to the Congress, dated January 1, 1861. It is a very important document, as it sets out the President's policy for the new year. The President states that he is pleased to see the Congress assembled, and that he is confident that the country is in a state of peace and prosperity.

2. The second part of the document is a report from the Secretary of the Treasury, dated January 1, 1861. It is a very important document, as it sets out the Secretary's policy for the new year. The Secretary states that he is pleased to see the Congress assembled, and that he is confident that the country is in a state of peace and prosperity.

3. The third part of the document is a report from the Secretary of the Interior, dated January 1, 1861. It is a very important document, as it sets out the Secretary's policy for the new year. The Secretary states that he is pleased to see the Congress assembled, and that he is confident that the country is in a state of peace and prosperity.

4. The fourth part of the document is a report from the Secretary of the War, dated January 1, 1861. It is a very important document, as it sets out the Secretary's policy for the new year. The Secretary states that he is pleased to see the Congress assembled, and that he is confident that the country is in a state of peace and prosperity.

5. The fifth part of the document is a report from the Secretary of the Navy, dated January 1, 1861. It is a very important document, as it sets out the Secretary's policy for the new year. The Secretary states that he is pleased to see the Congress assembled, and that he is confident that the country is in a state of peace and prosperity.

6. The sixth part of the document is a report from the Secretary of the State, dated January 1, 1861. It is a very important document, as it sets out the Secretary's policy for the new year. The Secretary states that he is pleased to see the Congress assembled, and that he is confident that the country is in a state of peace and prosperity.

7. The seventh part of the document is a report from the Secretary of the War, dated January 1, 1861. It is a very important document, as it sets out the Secretary's policy for the new year. The Secretary states that he is pleased to see the Congress assembled, and that he is confident that the country is in a state of peace and prosperity.

8. The eighth part of the document is a report from the Secretary of the Navy, dated January 1, 1861. It is a very important document, as it sets out the Secretary's policy for the new year. The Secretary states that he is pleased to see the Congress assembled, and that he is confident that the country is in a state of peace and prosperity.

The City's Public Safety Technical Report and Risk of Upset Section of the City's Master Environmental Assessment, as technical appendices to this Element, describe the major environmental hazards and their associated risks. Unstable geologic and soils conditions and areas that contain steep slopes over 30% grade present developmental constraints that could pose a risk to building safety. Wildland fire-prone areas occur in the undeveloped areas outside of the City; however, a major fire could threaten nearby homes in eastern Mission Viejo. Because the City is located along two major transportation corridors (Interstate 5 and the OCTA Metrolink Railroad right-of-way), potential hazards are associated with hazardous materials that may be transported along these routes. Flooding hazards also pose a threat to those areas located within a dam inundation area or within a 100-year floodplain.

HAZARD MITIGATION

Certain planning practices will be considered when assessing development proposals within areas where hazardous risks are associated. The City's zoning and building codes and the policies contained within this Element serve to reduce or avoid risks associated with the placement of development within hazardous areas. The Uniform Building Code designates Mission Viejo as being within climate zone 8, seismic zone 4, of having a maximum wind speed of 70 mph, and wind exposure as B. These designations help designer's design and the City of Mission Viejo Building Department approve structures that will hold up against specific regional impacts.

The City has adopted the International Conference of Building Officials (ICBO) uniform family of codes. The ICBO codes contain nationally utilized standards including fire safety requirements for minimum roadway widths and minimum building clearances. The City has been developed under modern public safety codes for building construction and essentially no deficiencies associated with fire equipment access exist.

Because Mission Viejo has been recently developed, few hazards associated with development of sensitive areas exist. The City is mainly concerned with emergency preparedness and responsiveness in case of major disaster.

TABLE PS-2

MODIFIED MERCALLI INTENSITY SCALE	
MAGNITUDE ON RICHTER SCALE	<i>Effects At Different Levels of Intensity Intensity Scale of 1931 (abridged)</i>
Below 3.0	I. Not felt except by a very few under especially favorable circumstances.
3.0-3.9 Distance Felt: (approx. miles) 15	II. Felt only by a few persons at rest, especially on upper floors of buildings. Delicately suspended objects may swing. III. Felt quite noticeably indoors, especially on upper floors of buildings, but many people do not recognize it as an earthquake. Standing motorcars may rock slightly. Vibration like passing of truck. Duration estimated.
4.0-4.9 Distance Felt: (approx. miles) 30	IV. During the day felt indoors by many, outdoors by few. At night some awakened. Dishes, windows, doors disturbed; walls make cracking sound. Standing motorcars rocked noticeably. V. Felt by nearly everyone, many awakened. Some dishes, windows, etc., broken; a few instances of cracked plaster; unstable objects overturned. Disturbances of trees, poles, and other tall objects sometimes noticed.
5.0-5.9 Distance Felt: (approx miles) 70	VI. Felt by all, many frightened and run outdoors. Some heavy furniture moved; a few instances of fallen plaster or damaged chimneys. Damage slight.
6.0-6.9 Distance Felt: (approx miles) 125	VII. Everybody runs outdoors. Damage negligible in building of good design and construction; slight to moderate in well-built ordinary structures; considerable in poorly built or badly designed structures; some chimneys broken. Noticed by persons driving motorcars. VIII. Damage slight in specially designed structures; considerable in ordinary substantial buildings, with partial collapse; great in poorly built structures. Panel walls thrown out of frame structures. Fall of chimneys, factory stacks, columns, monuments, walls. Persons driving motorcars disturbed.
7.0-7.9 Distance Felt: (approx miles) 250	IX. Damage considerable in specially designed structures; well-designed frame structures thrown out of plumb; great in substantial buildings, with partial collapse. Buildings shifted off foundations. Ground cracked conspicuously. Underground pipes broken. X. Some well-built wooden structures destroyed; most masonry and frame structures destroyed with foundations; ground badly cracked. Rails bent. Landslides considerable from river banks and steep slopes. Shifted sand and mud. Water splashed (slopped) over banks.
8.0-9.8	XI. Few, if any, (masonry) structures remain standing. Bridges destroyed. Broad fissures in ground. Underground pipelines completely out of service. Earth slumps and land slips in soft ground. Rails bend greatly. XII. Damage total. Practically all works of construction are damaged greatly or destroyed. Waves seen on ground surface. Lines of sight and level are distorted. Objects are thrown upward into the air.

Source: California Department of Conservation, Division of Mines and Geology, 1997.

Project Name	Project ID
Project A: Development of a new software module.	1001
Project B: Marketing campaign for the new product.	1002
Project C: Customer support training for the sales team.	1003
Project D: Research and development of a new material.	1004
Project E: Implementation of a new database system.	1005
Project F: Design and construction of a new building.	1006
Project G: Recruitment and hiring of new staff.	1007
Project H: Evaluation of the company's financial performance.	1008
Project I: Development of a new website.	1009
Project J: Implementation of a new security protocol.	1010
Project K: Research and development of a new drug.	1011
Project L: Marketing campaign for the new service.	1012
Project M: Customer support training for the technical team.	1013
Project N: Design and construction of a new bridge.	1014
Project O: Recruitment and hiring of new engineers.	1015
Project P: Evaluation of the company's environmental impact.	1016
Project Q: Development of a new mobile app.	1017
Project R: Implementation of a new data backup system.	1018
Project S: Research and development of a new alloy.	1019
Project T: Marketing campaign for the new technology.	1020
Project U: Customer support training for the management team.	1021

EMERGENCY RESPONSE AND ACTION

Sound planning practices have been exercised during Mission Viejo's development to ensure that adequate services are provided for more common emergencies such as crime incidents, traffic accidents, fires, and emergency medical care. Figure PS-6 identifies the location of the fire stations and the major hospital in the City. Mission Viejo contracts with the County of Orange for its fire and police protection needs. Information concerning fire service and police protection is included in the City's Public Facilities Element.

The City's EOP designates the proper procedures that are to be followed in the case of a major emergency. Emergency procedures include knowledge of the facilities within the City that are available for emergency assistance. The City has designated City Hall as the Emergency Operations Center (EOC). The EOC functions as the location for centralized direction and control of emergency organizations for the general public.

The emergency shelters also offer emergency first aid, disseminate information, and serve as a community information center where individuals can leave messages for friends and relatives.

An emergency response is also required in the case of a nuclear incident threat. The potential for such a threat increases with the volume and variety of radioactive materials potentially generated, stored, or transported in Mission Viejo and surrounding areas. As outlined in the City's EOP, the City's reaction to a nuclear incident may involve various local, special district, State and Federal agencies. The EOP identifies the actions necessary for the proper response to a potential nuclear threat as well as the local agency responsibilities.

The first step in the process is to identify the potential impacts of the proposed project. This involves a thorough review of the project description and the environmental context. The next step is to assess the significance of the impacts, taking into account the sensitivity of the receiving environment. This is followed by the development of mitigation measures to avoid, minimize, or compensate for the impacts. The final step is to prepare an impact assessment report, which provides a clear and concise summary of the findings and recommendations.

The impact assessment process is a key component of the decision-making process for the proposed project. It provides decision-makers with the information they need to understand the potential impacts of the project and to make informed decisions about whether to approve the project and what conditions should be attached to any approval. The impact assessment process is also a valuable tool for the public, as it provides them with the information they need to understand the potential impacts of the project and to express their views on the project.

The impact assessment process is a complex and iterative process, and it is important to ensure that it is carried out in a transparent and accountable manner. This involves involving the public in the process from the start, and providing them with the information they need to understand the process and to express their views. It also involves ensuring that the process is subject to independent review and that the findings and recommendations are clearly communicated to decision-makers.

The impact assessment process is a key tool for managing the environmental impacts of the proposed project. It provides decision-makers with the information they need to understand the potential impacts of the project and to make informed decisions about whether to approve the project and what conditions should be attached to any approval. The impact assessment process is also a valuable tool for the public, as it provides them with the information they need to understand the potential impacts of the project and to express their views on the project.

HAZARDOUS MATERIALS PLAN

Emergency response procedures in the case of a disaster involving hazardous materials are outlined in the City's Emergency Operations Plan and the County's Hazardous Waste Management Plan. Such emergency procedures are directed by the County's Fire Incident Command System. The City will cooperate and assist in emergency operations as required under their EOP. Policies contained in this Element serve to protect the City's inhabitants from hazardous waste disasters through implementation of the City's EOP and the County's Hazardous Waste Management Plan. The City also has adopted a Hazardous Waste Facility Siting ordinance to establish uniform standards in order to control the location, design, and maintenance of hazardous waste facilities. The City's zoning code also contains restrictions on the placement of hazardous waste facilities.

(See figure PS-6 Emergency Facilities)

Legend

- City Boundary
- Lakes
- Earthquake - Induced Landslides
- Liquefaction

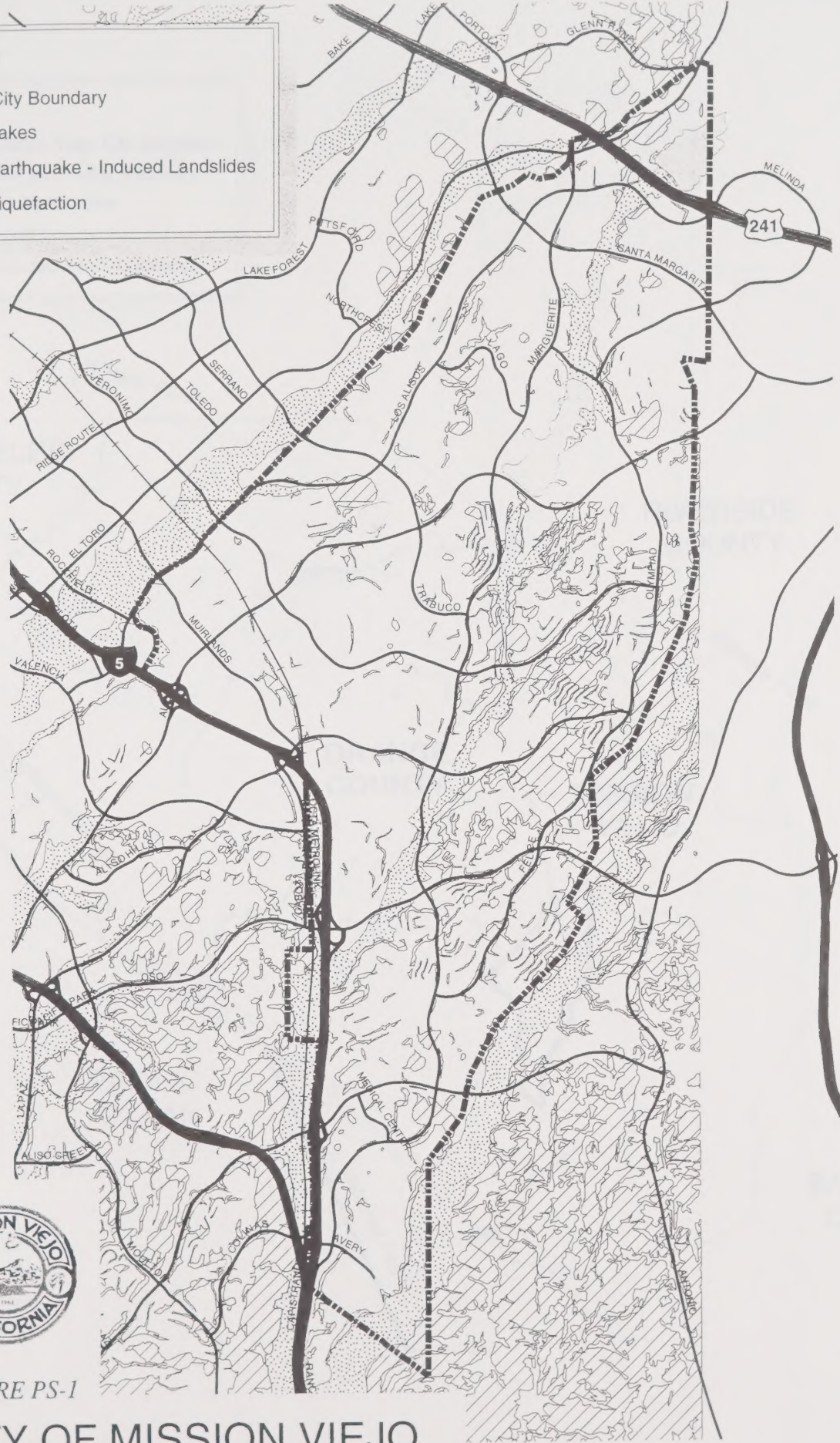


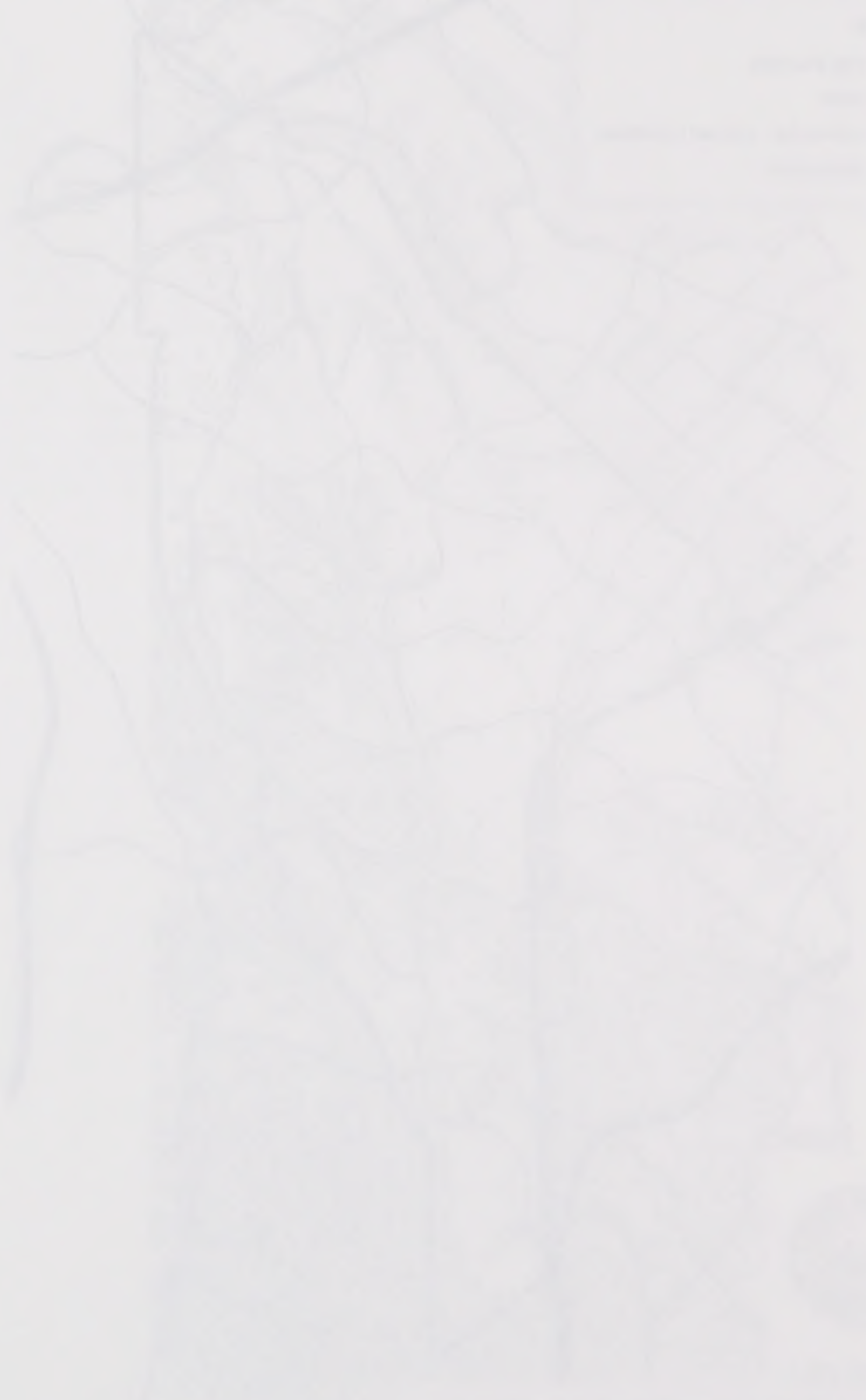
FIGURE PS-1

CITY OF MISSION VIEJO

SEISMIC HAZARD ZONES

Source: California Department of Conservation





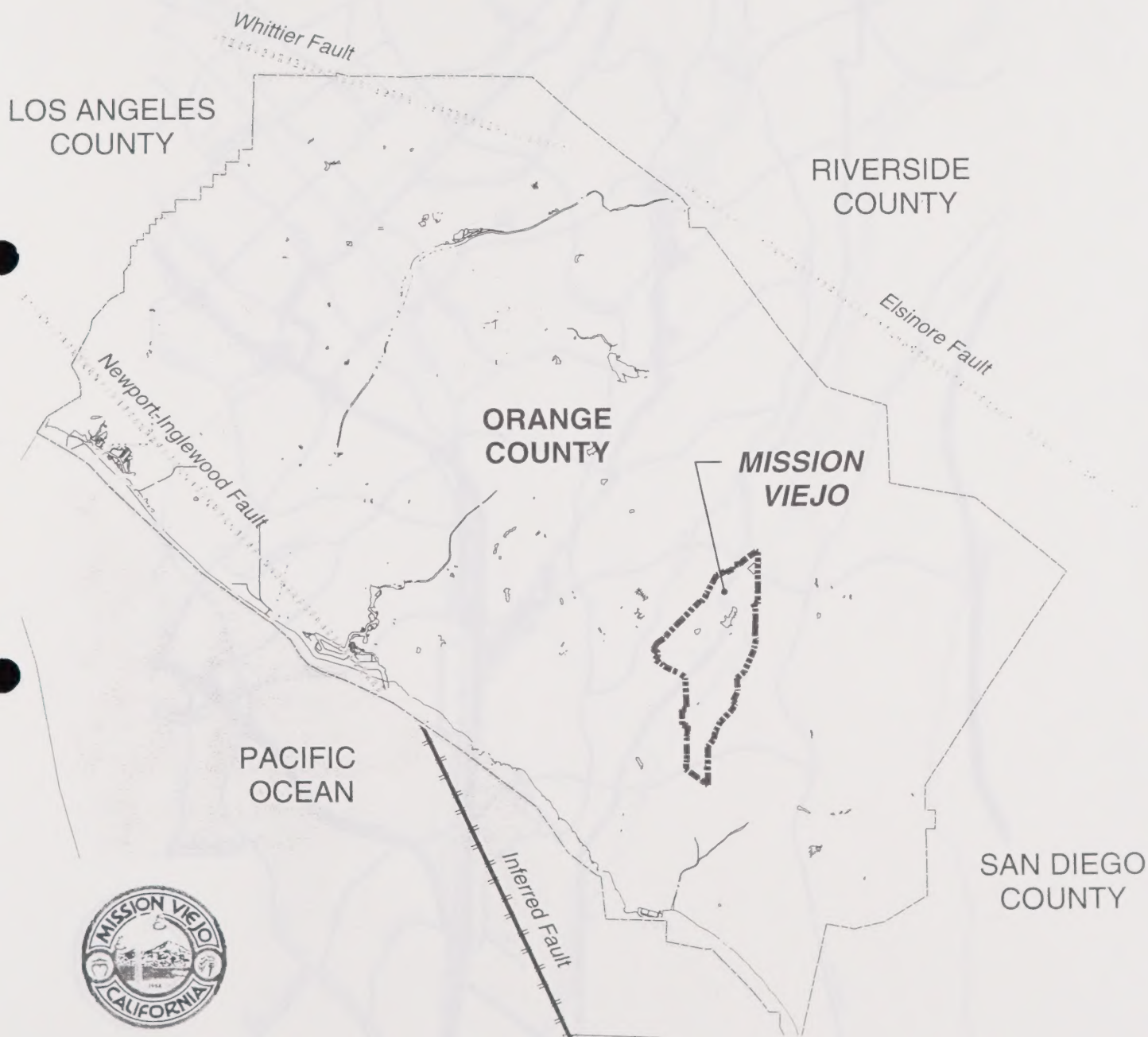
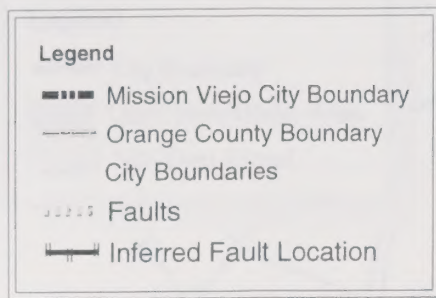


FIGURE PS-2

CITY OF MISSION VIEJO FAULT MAP



1994
City of Mission Viejo
Planning Department
1000
1000
1000



1000
1000
1000

RIVERSIDE
COUNTY

ORANGE
COUNTY

MISSION
VIEJO

1000
1000
1000

MISSION
VIEJO



CITY OF MISSION VIEJO
FAULT MAP

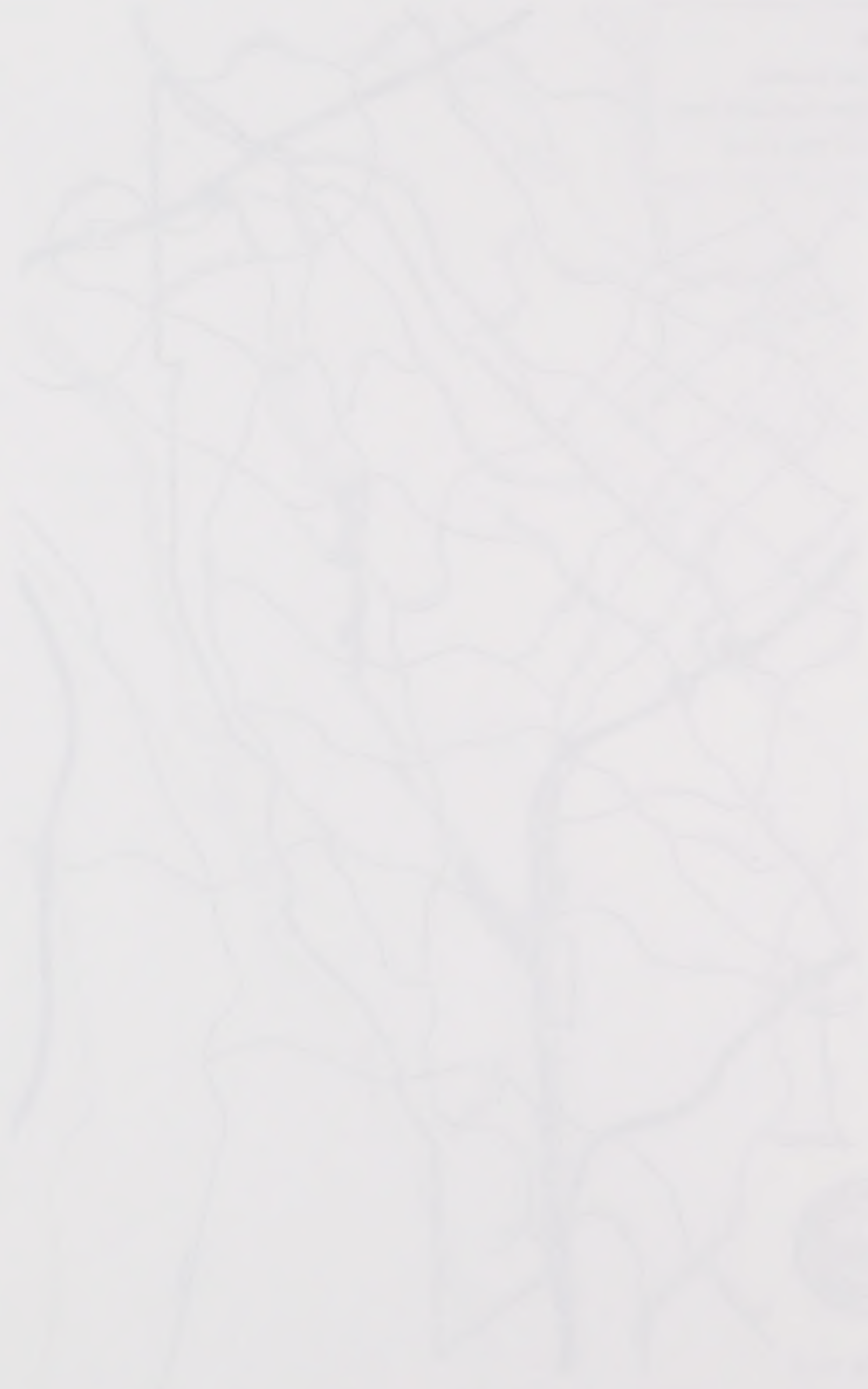


FIGURE PS-3

CITY OF MISSION VIEJO FLOOD HAZARD ZONES

Source: Federal Emergency Management Agency





CITY OF MISSION VIEJO
FLOOD HAZARD ZONES
2010

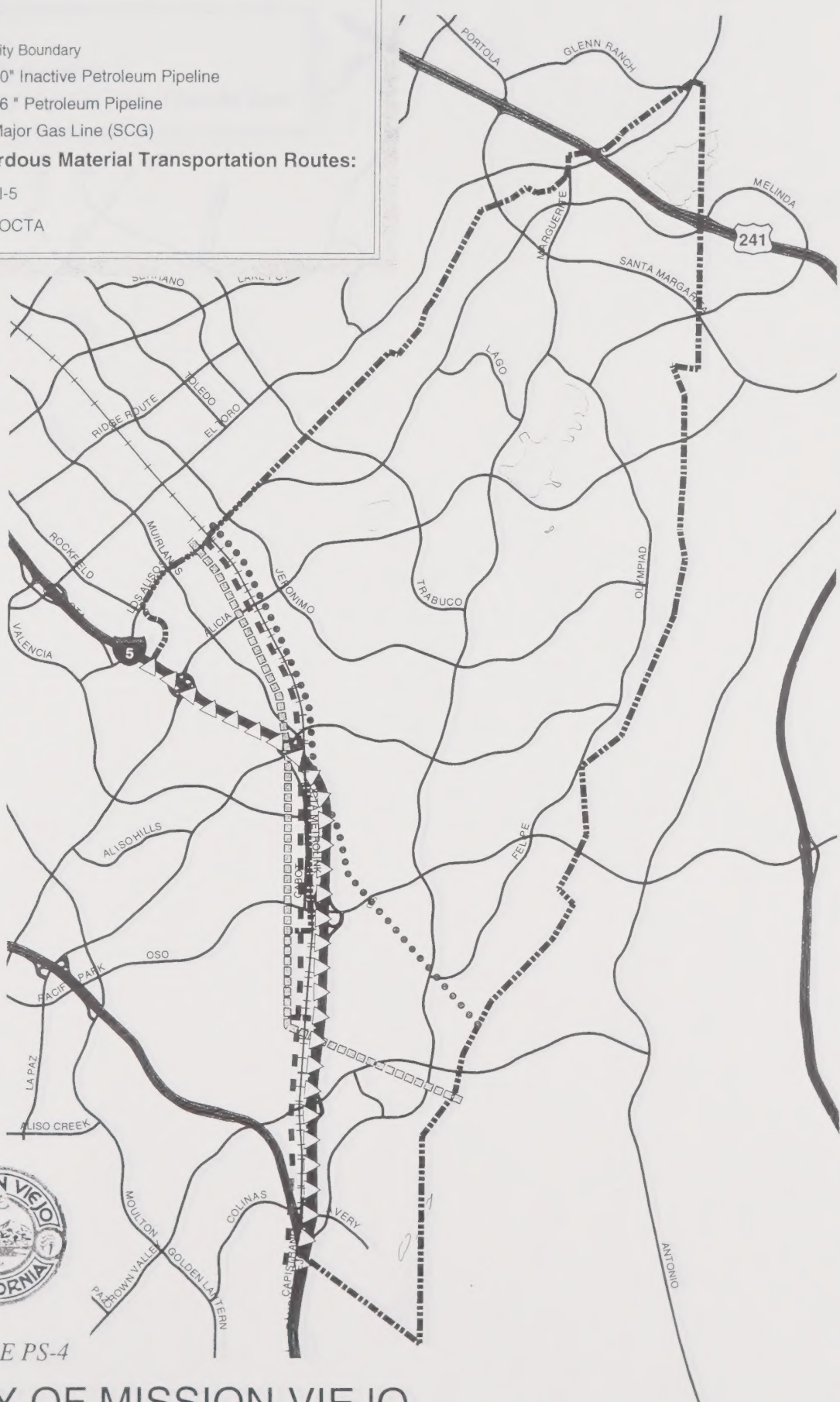
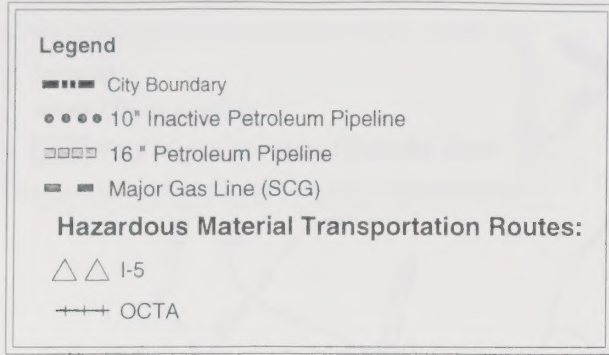


FIGURE PS-4

CITY OF MISSION VIEJO HAZARDOUS MATERIALS MAP





CITY OF MISSION FIELD
HAZARDOUS MATERIALS MAP

Legend

City Boundary

Very High Fire Hazard Severity Zone

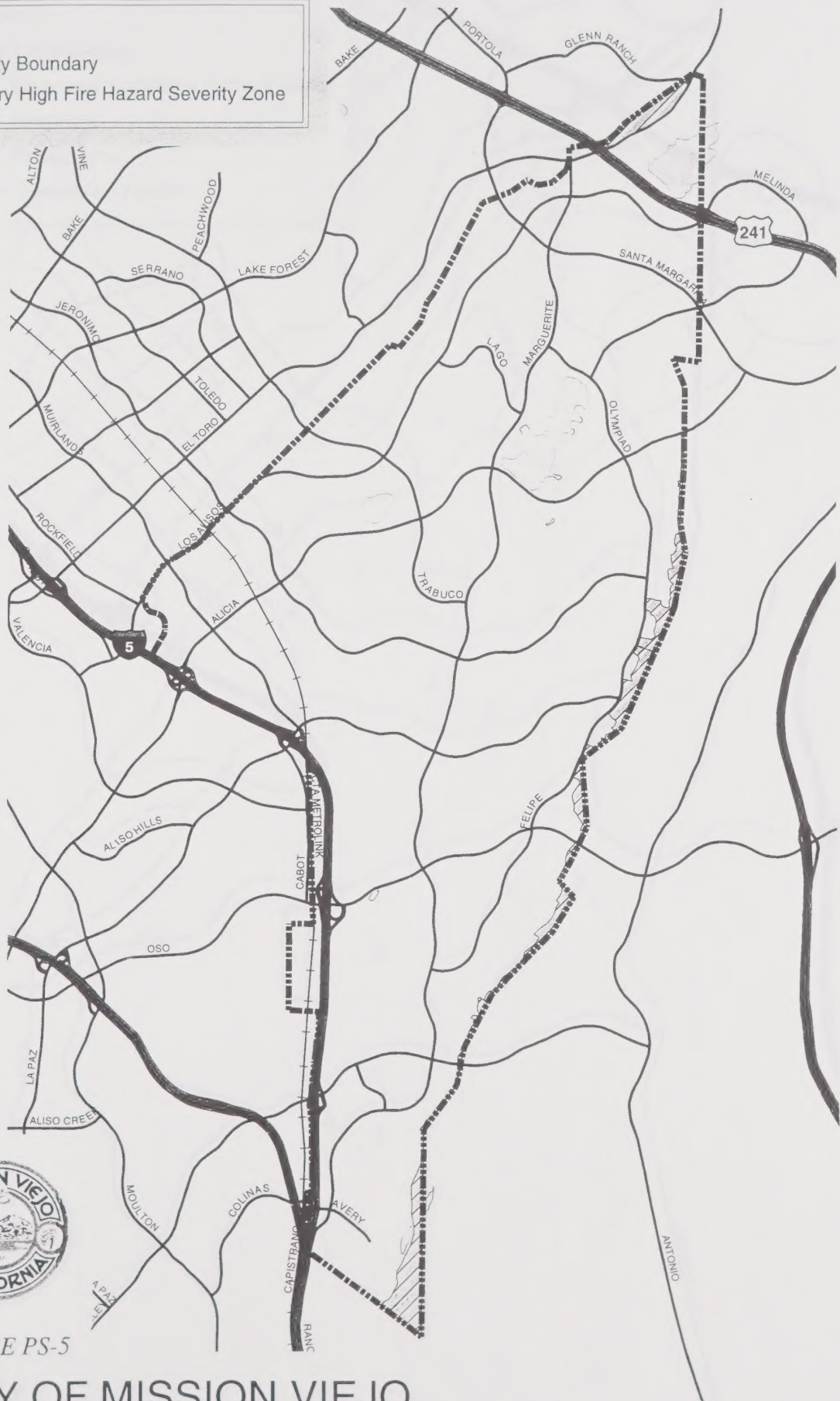


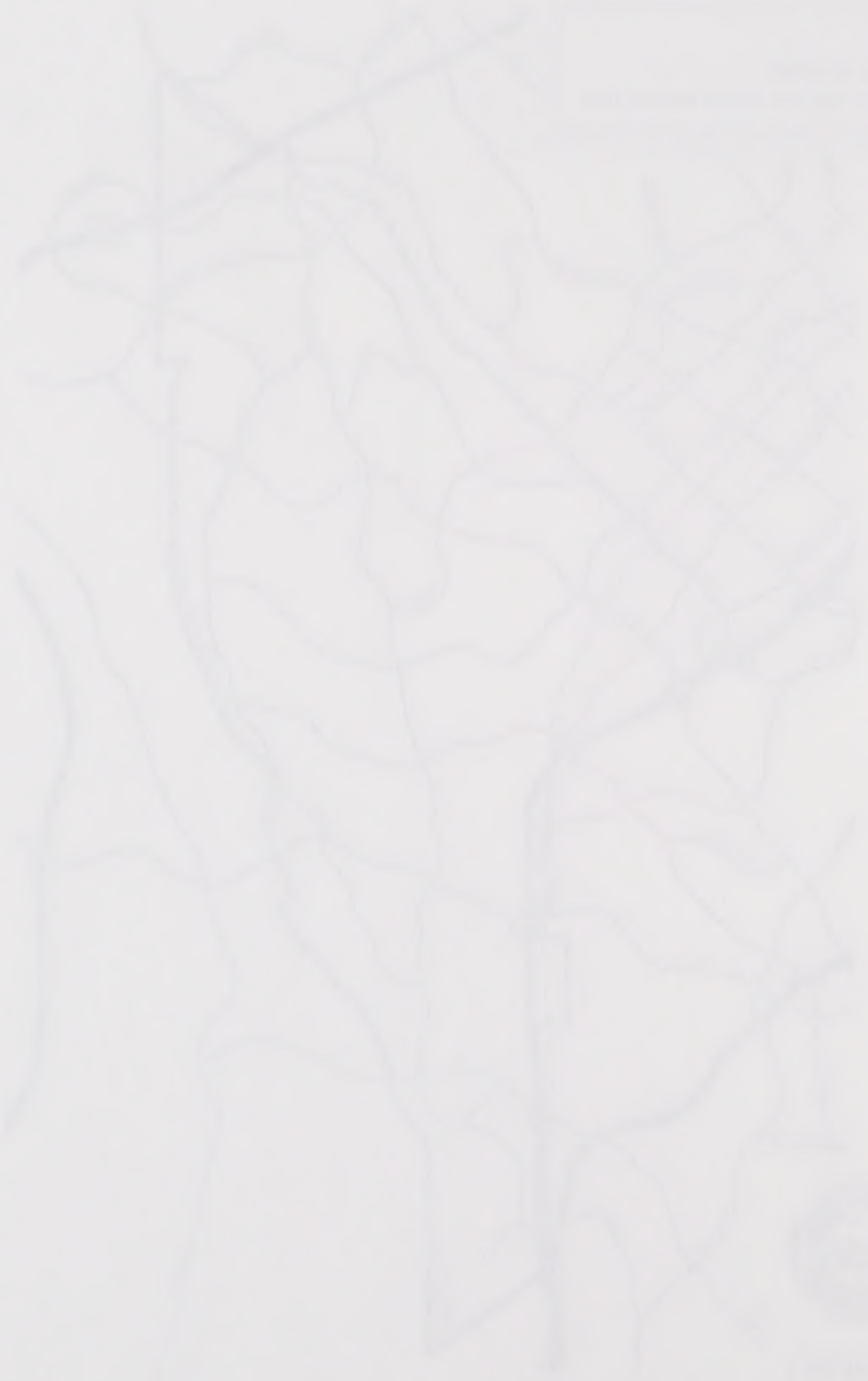
FIGURE PS-5

CITY OF MISSION VIEJO

VERY HIGH FIRE HAZARD MAP

Source: Ordinance No. 95-151





VERY HIGH FIRE HAZARD MAP
CITY OF MISSION VIEJO
2014



Legend

- City Boundary
- Emergency Shelters (School Sites)
- Hospitals
- Firestations
- Evacuation Routes

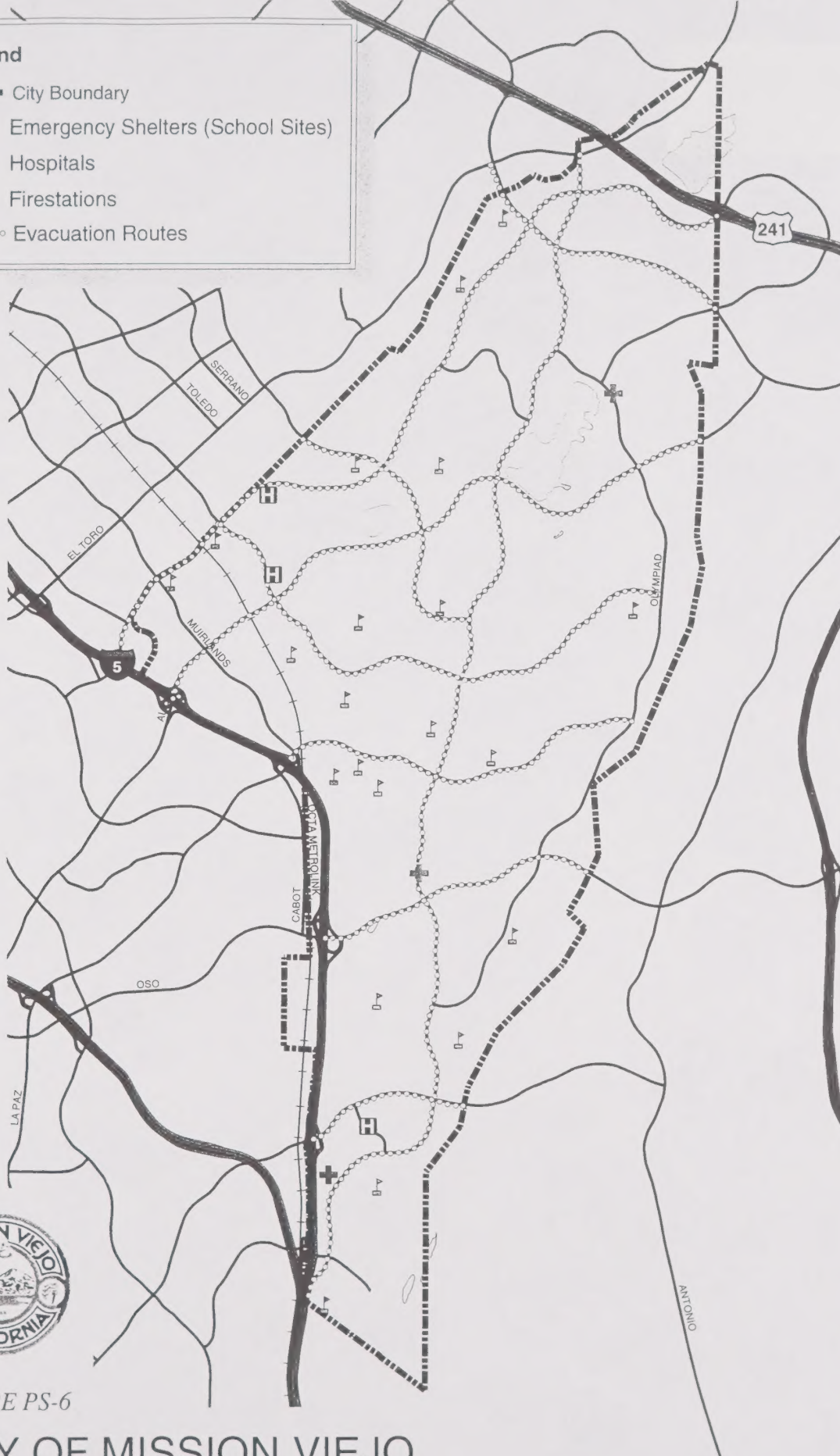


FIGURE PS-6

CITY OF MISSION VIEJO
EMERGENCY FACILITIES MAP

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C124877006



EMERGENCY FACILITIES MAP
CITY OF MISSION VIEJO